OPNAV
N61K

IT Investment and Requirements Management Process

Abbreviated Brief
DRAFT Version 3.0
10 April 2003

Purpose

OPNAV N61K

Discuss the dynamics of the current DoN IT environment

Identify Enterprise Services model and management process

Outline DoN IT challenges and steps required to fully leverage IT

Propose Pilot to validate the IT Investment and Requirements Management Process

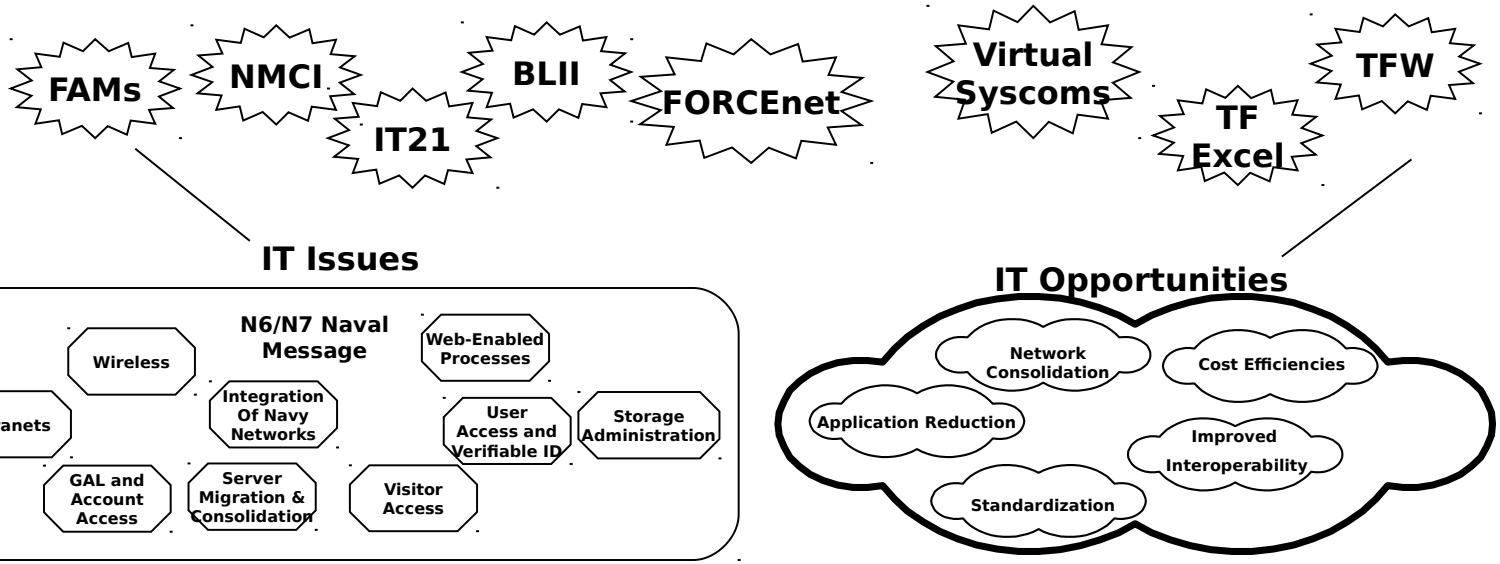
Current DoN IT Atmosphere

OPNAV N61K

The Navy is doing a lot of good things

DoN is instituting a number of IT initiatives in support of SeaPower 21

- The advent of these initiatives has uncovered several issues, which will impact the Navy's IT enterprise of the future
- The institution of these initiatives creates significant opportunities for the DoN



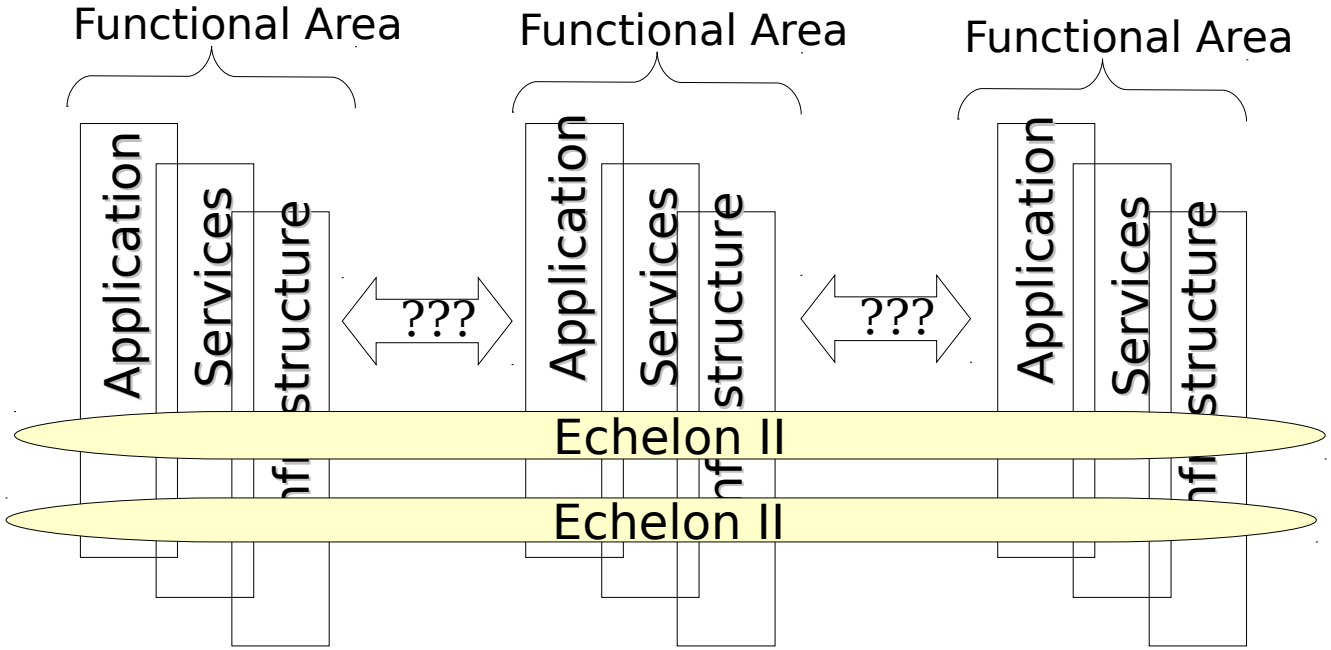
Requirement for DoN to provide highly leveraged services throughout the enterprise

As-Is Model

OPNAV N61K

Currently, each Functional Area manages IT requirements independently

- Functional Areas operate in stove-piped approach
- Echelon II's must work across each functional domain



DoN requires framework to implement and manage common IT services

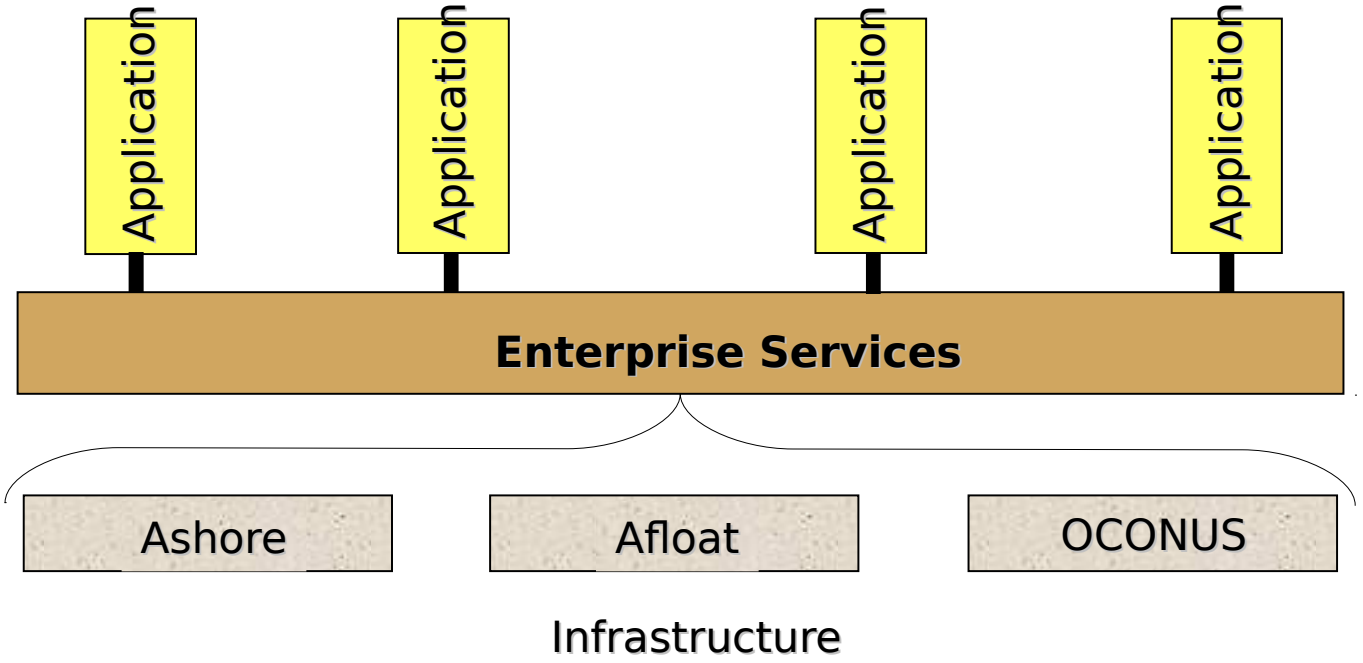
To-Be Model

OPNAV N61K

Implementation of an Enterprise Service layer supports applications and integrates Navy Networks

IT Enterprise Services

- Common capabilities that can be shared or leveraged by multiple business systems over multiple functional domains across the enterprise.
- Examples include: Enterprise Portal, Identity/ Security Management, and Enterprise Storage.



How will DoN manage Enterprise Services?

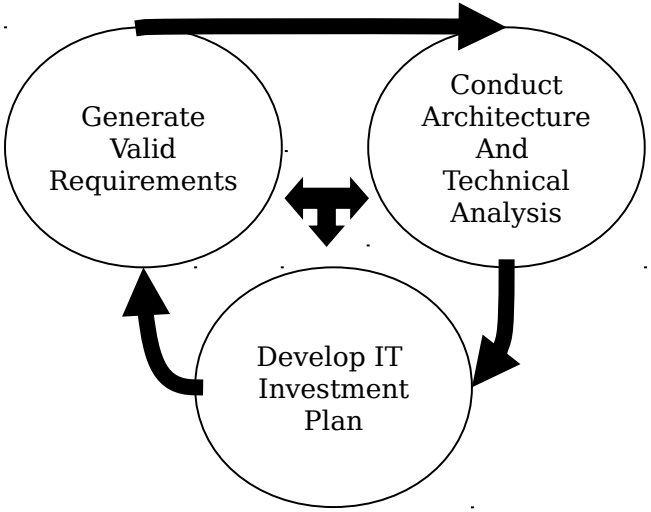
OPNAV N61K

Implement process to provide structured analysis to vet IT requirements

Stand-up Working Groups with representation throughout IT organization

- NNWC – lead for capturing requirements
- SPAWAR CHENG - lead for conducting architectural and technical analysis
- PEO-IT – lead for developing investment strategy

Institute Leadership Board to make prioritization decisions



Basic Systems Engineering Approach

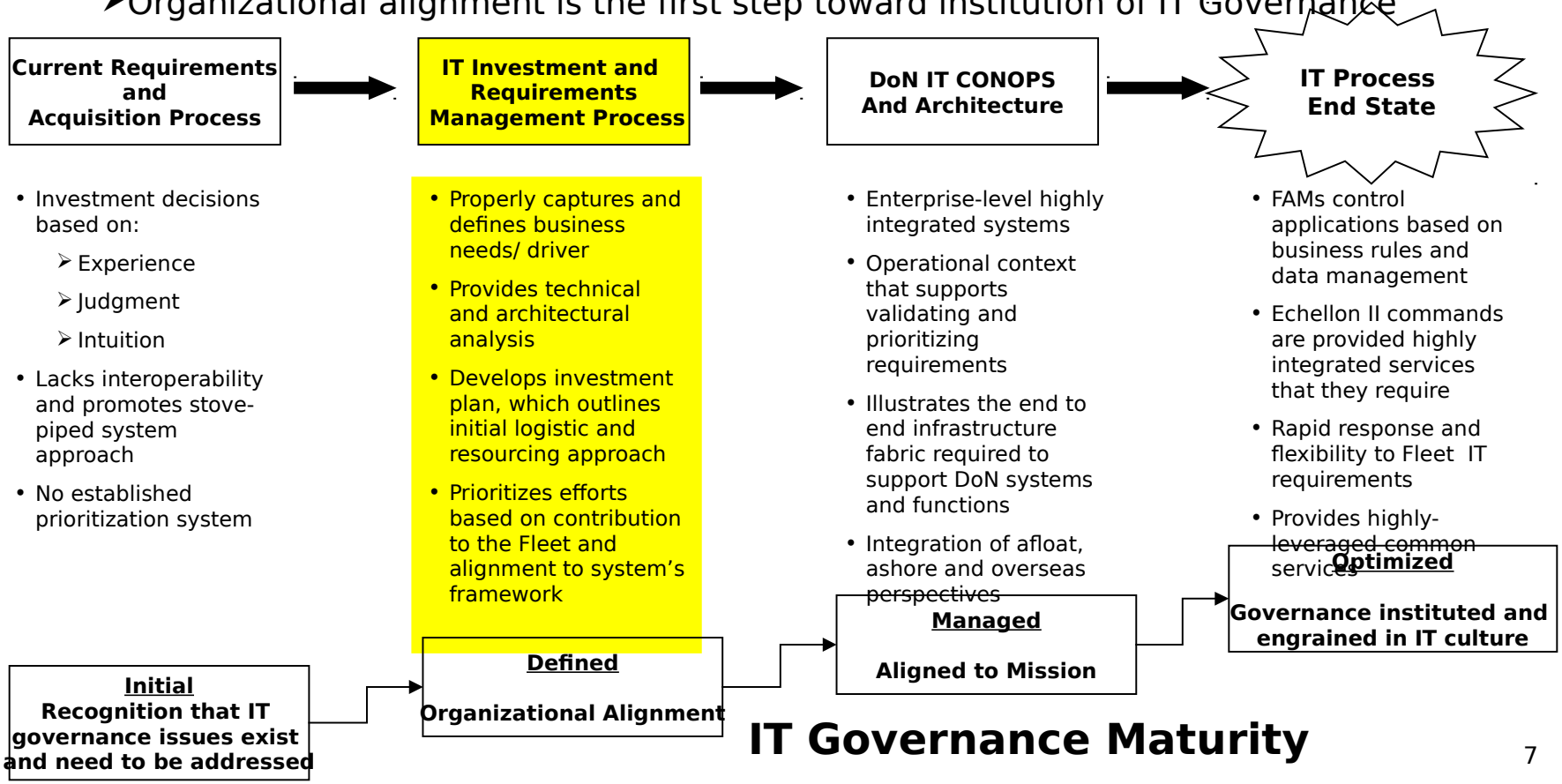
<u>Product</u>
Coordinated investment strategy based on prioritization of well-defined and technically analyzed requirements

Where are we going?

OPNAV N61K

Implementation of the IT Investment and Requirements Management Process is a key building block toward answering DoN IT challenges

- Analysis of enterprise-level requirements highlights need for overarching architecture
- Organizational alignment is the first step toward institution of IT Governance


Current Requirements and Acquisition Process
IT Investment and Requirements Management Process
DoN IT CONOPS And Architecture
IT Process End State
• Investment decisions based on:
➢ Experience
➢ Judgment
➢ Intuition
• Lacks interoperability and promotes stove-piped system approach
• No established prioritization system
• Properly captures and defines business needs/ driver
• Provides technical and architectural analysis
• Develops investment plan, which outlines initial logistic and resourcing approach
• Prioritizes efforts based on contribution to the Fleet and alignment to system's framework
• Enterprise-level highly integrated systems
• Operational context that supports validating and prioritizing requirements
• Illustrates the end to end infrastructure fabric required to support DoN systems and functions
• Integration of afloat, ashore and overseas perspectives
• FAMs control applications based on business rules and data management
• Echellon II commands are provided highly integrated services that they require
• Rapid response and flexibility to Fleet IT requirements
• Provides highly-leveraged common services
Initial
Recognition that IT governance issues exist and need to be addressed
Defined
Organizational Alignment
Managed
Aligned to Mission
Optimized
Governance instituted and engrained in IT culture
IT Governance Maturity

Approach

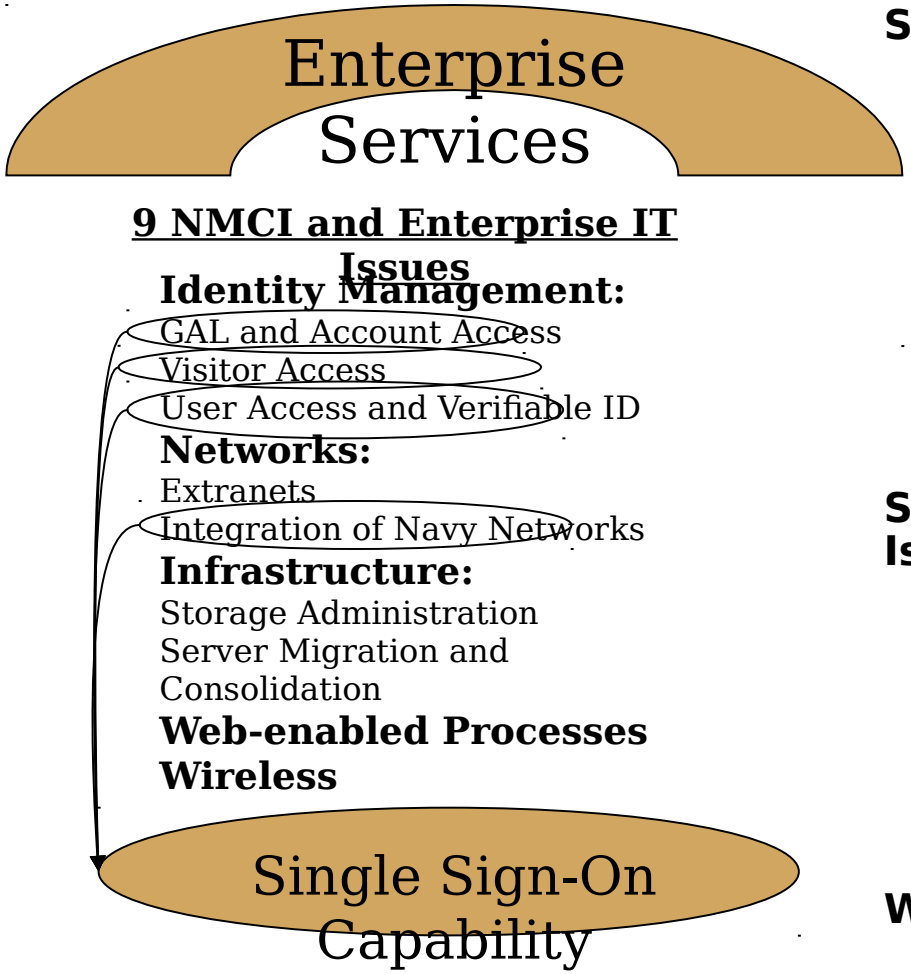
OPNAV N61K

Iterative implementation of IT Investment and Requirements Management Process

- Perform Pilot – Validate roles, responsibilities, and Process products
- Evolve – Incorporate lessons learned from Single Sign-On Pilot to validate and refine IT Investment and Requirements Management Process across NMCI and Enterprise IT Issues
- Institutionalize – Fully validate and accredit Process to be implemented across the DoN for all Enterprise IT Services

What is the Pilot?

OPNAV N61K



Single Sign-On

- NGDS is a component
  - Enterprise service essential to end-to-end performance and exchange of information
  - Capability to store and retrieve information about people, organizations, applications, and network components
  - Solution provided to avoid 3000 applications managing users independently and inconsistently

Supports NMCI and Enterprise IT Issues resolution tasking

- Integral component of overall initiative
- Required to implement other directory related initiatives
- Enterprise agreement on need for global directory

Work has already begun

- Should move rapidly through abbreviated IT Investment and Requirements Management Process

Conclusion

OPNAV N61K

Investment decisions are currently based on expertise, judgment and intuition

IT Investment and Requirements Management Process is basic systems engineering approach

- Short term: Run pilot to validate Process
- Long term: Institutionalize across DoN to support management of Enterprise Services

Process provides structured analysis for vetting IT requirements in support of a DoN IM/IT Enterprise Implementation Plan

Process enables sound IT investment decisions in support of the POM and Budgeting, and Execution

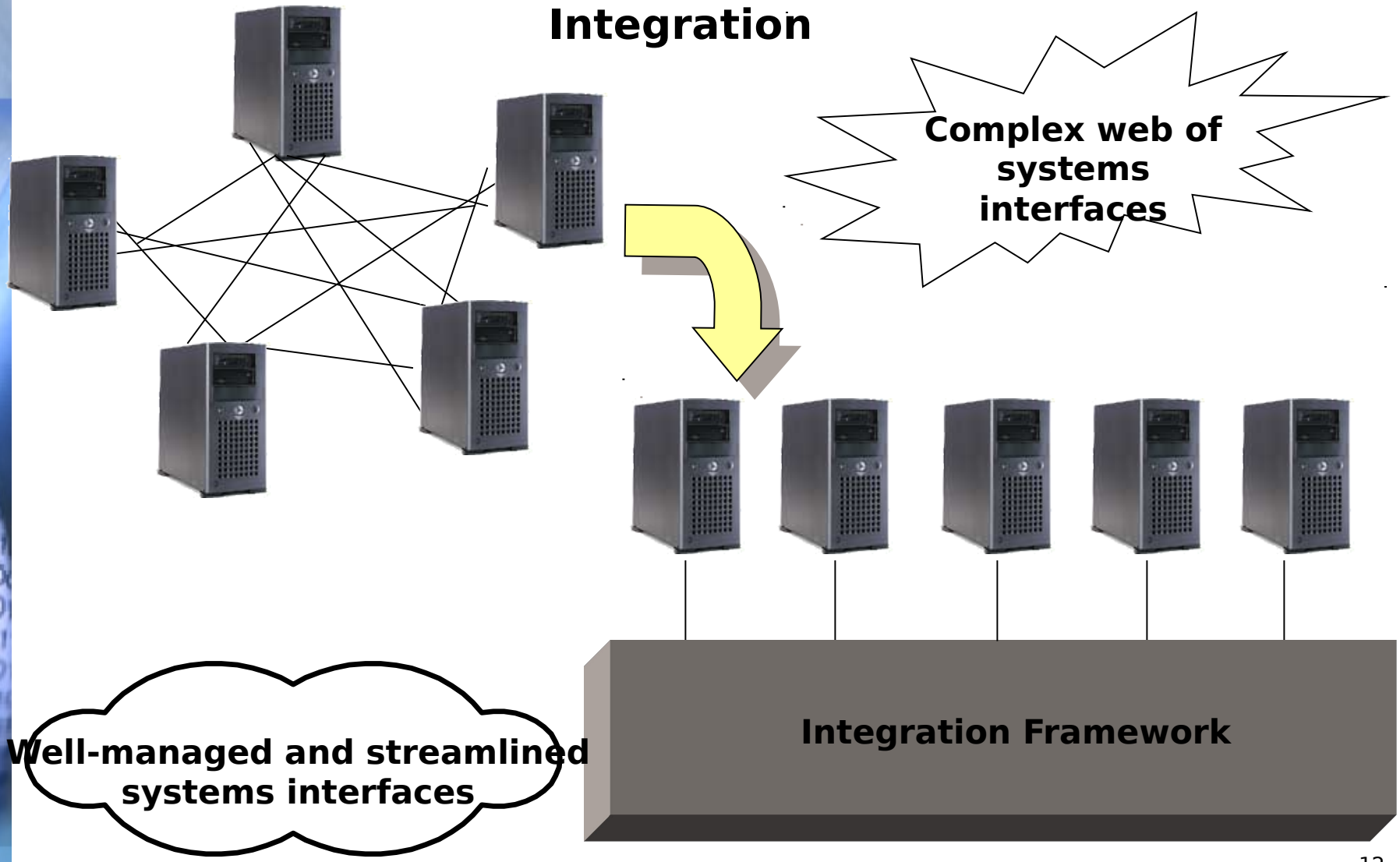
Back-up

OPNAV
N61K

Back-up – Example of Enterprise Service

OPNAV N61K

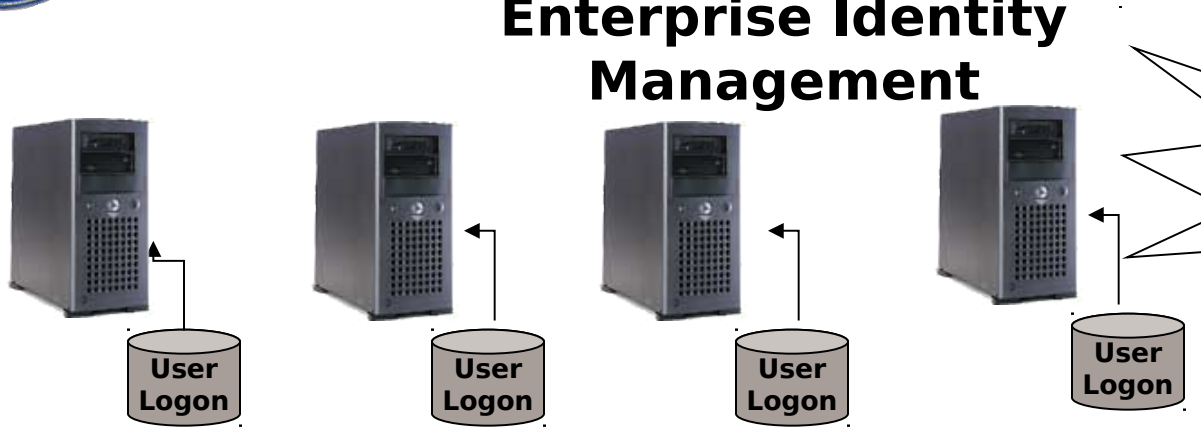
Enterprise Application Integration

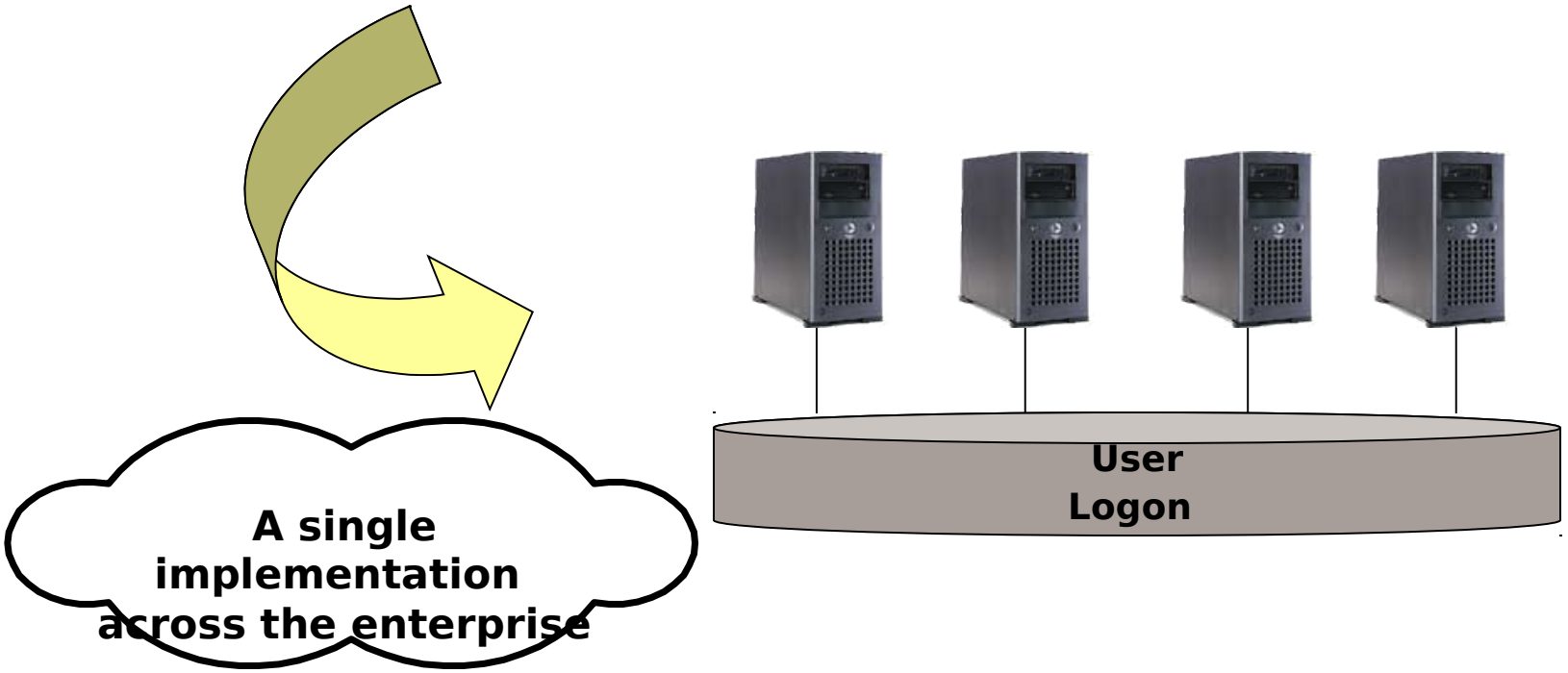


Back-up – Example of Enterprise Service (cont.)

OPNAV N61K

Enterprise Identity Management





Back-up - Enterprise Services

OPNAV N61K

Application Data Management – The management of all data/information in an organization. It includes data administration, the standards for defining data, and the management of data to ensure it is accurate, accessible, non-redundant, consistent, flexible, and secure.

Application Hosting – A capability that provides business applications/services hosting by supplying required HW, SW, infrastructure, and facility.

Business Activity Monitoring – Intended to give enterprises "instant insight" into their systems and business processes through a dashboard-type UI

Enterprise Content Management – Managing the creation, modification, and removal of content. More specifically, used to categorize, index, store, search for, and retrieve specific, relevant data, information, or knowledge.

Data Center Consolidation – Activity of merging multiple data centers to gain economies of scale in enterprise HW/SW management and operations.

Data Mart Consolidation – Consolidating a database, or collection of databases, which are designed to help managers make strategic decisions about their business. Whereas a data warehouse combines databases across an entire enterprise, data marts are usually smaller and focus on a particular subject or department

Back-up Enterprise Services (cont.)

OPNAV N61K

Disaster Recovery – Precautions taken to minimize the effects of a disaster so that the organization will be able to either maintain or quickly resume mission-critical functions; also referred to as Continuity of Operations Planning (COOP)

Enterprise Integration Construct/EAI – Approach to introducing and implementing IT whereby an integrator provides the entire solution (similar to a prime contractor or systems integrator in the acquisition community) and is, thus, responsible for overall system performance

Enterprise IT Asset Management – A formal, comprehensive process for tracking of hardware and software assets, software licenses, equipment contracts and leases, and networks

Enterprise Logistics Service Planning – Innovative processes and technologies to attain corporate goals for cost-effective competitive advantages, including supply chain management

Enterprise Messaging – Ability to exchange information among users or applications on the enterprise infrastructure; some examples of enterprise messaging are email, voicemail and text pagers.

Enterprise Performance Management – Various programs intended to help management in strategic and operational planning and monitoring and making strategic and operational decisions; furthermore, assisting analysts and knowledge workers in doing domain-specific analysis

Back-up Enterprise Services (cont.)

OPNAV N61K

Enterprise Portal – A central Web site or service that increases organizational effectiveness and competitiveness by enabling and transforming an organization into a knowledge-centric organization in order to capture, share, and leverage valuable enterprise intellectual capital

Enterprise Reporting – A centralized comprehensive repository for formatting, capturing and distributing enterprise information; this information can be used for measuring performance and is an enabler for Enterprise Performance Management

Enterprise Resource Planning – Industry term for the broad set of activities supported by multi-module application software that helps a manufacturer or other business manage the important parts of its business; often represented by a software package that integrates formerly different domain (HR, Finance, etc.) databases across an enterprise

Enterprise Storage – Centralized repository for business information that provides common data management and protection, as well as data sharing functions, through connections to numerous (and possibly dissimilar) computer systems

Back up- Enterprise Services (cont.)

OPNAV N61K

Enterprise Systems Management (ESM) – Integrated systems, network, and applications administration across all levels of an organization. Within the DoN, ESM is directed through the Enterprise Solutions (ES) initiative:

1. ES is a Navy initiative to institute enterprise-wide perspectives into the management of IT programs, applications, and assets

2. The approach is to work within each functional community to consolidate redundancies while introducing best of breed

3. Executive-level cross-functional groups will apply similar principles across the functional areas

4. Stakeholders from operational, resource, and acquisition communities are involved

Enterprise Wireless Application Architecture – The enterprise architecture that describes the overall structure, logical components, and the logical interrelationships of wireless applications to the overall enterprise

Identity Administration – The management of user's profile, including security profile, and various resource access privilege in an organization

Back-up Enterprise Services (cont.)

OPNAV N61K

IT Governance – An organization's visions, guidelines, processes and policies that direct and control IT operations in order to add value while balancing risks

Operational Data Store/Data Warehouse – A capability that consolidates a wide variety of data that represent a coherent picture of business conditions at a single point in time. It serves as a collection of data designed to support management decision-making

Security Management – Refers to techniques for ensuring that data stored in a computer cannot be accessed by unauthorized party; some examples of techniques used for security management are Public Key Infrastructure (PKI), email encryption, and Secure Sockets Layer (SSL) for secure communications between browser and website

User Assistant – Automated "helper" capabilities that reduce effort required to perform manpower intensive tasks

Web Services – A standardized way of integrating Web-based applications using the XML, SOAP, WSDL and UDDI open standards over an Internet protocol backbone. Allows different applications from different sources to communicate with each other without time-consuming custom coding